

Product Name: Polygodial

Catalog No.: 3197

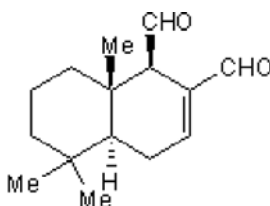
Batch No.: 3

CAS Number: 6754-20-7

IUPAC Name: (1*R*,4*aS*,8*aS*)-1,4,4*a*,5,6,7,8,8*a*-Octahydro-5,5,8*a*-trimethyl-1,2-naphthalenedicarboxaldehyde

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₂₂O₂.
Batch Molecular Weight: 234.33
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	76.88	9.46	
Found	77.16	9.81	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com

info@bio-techne.com
techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors
Tel: +1 612 379 2956

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Description:

Polygodial is a TRPA1 channel activator ($EC_{50} = 400$ nM) that is selective against TRPV1, TRPV2, TRPV3, TRPV4 and TRPM8 channels. Acts as an analgesic via desensitization of sensory neurons. Also exhibits antifungal activity via inhibition of mitochondrial ATPase.

Physical and Chemical Properties:

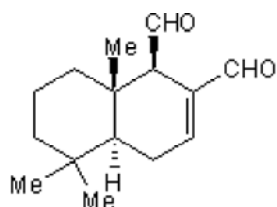
Batch Molecular Formula: $C_{15}H_{22}O_2$.

Batch Molecular Weight: 234.33

Physical Appearance: White solid

Minimum Purity: $\geq 97\%$

Batch Molecular Structure:



Storage: Store at $-20^{\circ}C$

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a $45-60^{\circ}C$ water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at $-20^{\circ}C$ or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Escalera et al (2008) TRPA1 mediates the noxious effects of natural sesquiterpene deterrents. *J.Biol.Chem.* **283** 24136. PMID: 18550530.

Matsuda et al (2002) Protective effect of polygodial and related compounds on ethanol-induced gastric mucosal lesions in rats: structural requirements and mode of action. *Bioorg.Med.Chem.Letts.* **12** 477. PMID: 11814823.

Lunde and Kubo (2000) Effect of polygodial on the mitochondrial ATPase of *Saccharomyces cerevisiae*. *Antimicrob.Agents Chemother.* **44** 1943. PMID: 10858359.

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